Relevance

Unit 8

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In summary, unit 8 of geometry is about the angles and relationships of circles. In the real world, it turns out, circles are everywhere, and knowing how to work out the relationships is very useful.

Pizza

The dictionary defines pizza as "a dish of Italian origin consisting of a flat, round base of dough baked with a topping of tomato sauce and cheese, typically with added meat or vegetables". The classic pizza is cut into 8 congruent pieces. If you knew the number of calories per slice, using the information from unit 8, we could find a serving of pizza in any shape, using chords, or just freeform drawing. Before unit 8, I would have been hard pressed to find the ratios in circles. The more you know!

Newgrange

Me

Located in Co. Meath, Ireland, Newgrange is a neolithic passage tomb, and tourist destination. Every year, on the Winter solstice (provided it is a clear morning), a beam of sunlight enters the dark tomb, illuminating the interior chamber. The ancients made it without the wheel, moving rocks by hand. What they didn't know, however, was that astronomical bodies move. Using calculations possible with unit 8, we can see that the light shouldn't line up perfectly after all of the years. They don't! The sun shines through 4 minutes off from 5,000 years ago.

Drombeg Stone Circle

Drombeg Stone Circle, also known as the Druid's Altar, is a prehistoric site in Co.Cork, Ireland. It has a diameter of 23 feet, and 13 stones that stand today. Like Newgrange, it is thousands of years old, and has an alignment with the sun on the Winter solstice.
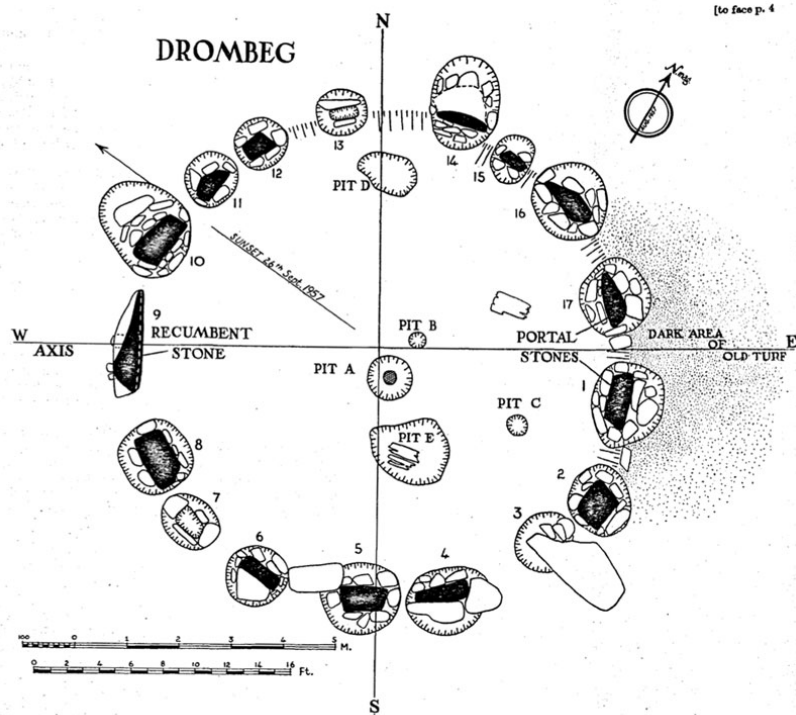
Drombeg Stone Circle

Since it is an almost perfect circle, you can find the distance between any two stones (in degrees) and map out where the sun would be, in the sky, on any given day. Those calculations would be a bit too advanced though, unit 8 provided a great base. We can use the chord theorems to find any distance between stones, in feet. I wonder what it was like back in neolithic Ireland. They were pretty good at geometry!

Luis Bridge

The Luis Bridge in Portugal is formed by a segment of a circle (from a secant) and a tangent line as the road. This relates to unit 8, because we learned about tangents, secants, and segments, which are the basis of this unique design. The architect must have had a great time in geometry!

Works Cited

Drombeg Stone Circle. Digital image. *Archaeology.ie*. N.p., n.d. Web.

Drombeg Stone Circle Map. Digital image. *Frame to Frame*. N.p., n.d. Web.

Luis Bridge. Digital image. N.p., n.d. Web.

Pizza Cut in 8. Digital image. *Math Prof*. N.p., n.d. Web.